UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,222	12/31/2003	Valerie Guralnik	256.186US1	6645

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EXAMINER
BHAT, ADITYA S

ART UNIT	PAPER NUMBER
2863	

MAIL DATE	DELIVERY MODE
06/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

CH

	Application No.	Applicant(s)
	10/750,222	GURALNIK ET AL
Office Action Summary	Examiner	Art Unit
	Aditya S. Bhat	2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _1_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _07 March 2007_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-28 and 30-33_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-3,6,8,16-18,21 and 30-33_ is/are rejected.

7) ☒ Claim(s) _18,19 and 33_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _31 December 2003_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____.

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _5/24/07_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims18-19 and 33 are objected to because of the following informalities: The

term (for new bad actors) in claim 18, line 1 should be removed. Parenthesis around the

phrase "when new bad actor(s) are added" is not needed. With regards to claim 33, the

term "parameter" should be "parameters". Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture,
> or composition of matter, or any new and useful improvement thereof, may obtain a
> patent therefor, subject to the conditions and requirements of this title.

Claims 1-15 and 30-33 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

The claims are directed to a judicial exception; as such, pursuant to the Interim

Guidelines on Patent Eligible Subject Matter (MPEP 2106)), the claims must have either

physical transformation and/or a useful, concrete and tangible *result*. The claims fail to

include transformation from one physical state to another. Although, the claims appear

useful and concrete, there does not appear to be a tangible result claimed. Merely

finding a cluster of bad actors related to the event to identify the event would not appear

to be sufficient to constitute a tangible result, since the outcome of the "finding a cluster

of bad actors related to the event to identify the event" step has not been used in a

disclosed practical application nor made available in such a manner that its usefulness

in a disclosed practical application can be realized. As such, the subject matter of the

claims is not patent eligible.

Please view the following guidelines to overcome 35 U.S.C. 101 rejection made

in this office action in MPEP 2106 and/or

http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6,8, 16-18, 21 and 30-33 are rejected under 35 U.S.C. 102(e) as

being anticipated by Hsiung et al. (USPN 6,853,920).

With regards to claims 1 and 16, Hsiung et al. (USPN 6,853,920) teaches a

system and method of identifying events in a process, comprising:

running a principal component analysis (Col. 63, lines 53-55)model on sensor

data from the process;(col. 63, lines 63-65)

calculating statistics related to the model; (col. 63, lines 57-59) (col. 70, lines 3-

10)

determining if an event is occurring; (Col.63, lines 59-62) and

finding a nearest cluster of bad actors (col. 21, line 45) related to the event to identify the event. (Col.21, lines 44-49)

It should be noted that the term "bad actors" has not been explicitly defined in the specification, and is therefore given the broadest reasonable interpretation based on the terms dictionary definition.

With regards to claim 30, Hsiung et al. (USPN 6,853,920) teaches a computer implemented method of identifying events in a process, the method comprising:

running a principal component analysis(Col. 63, lines 53-55) model on sensor data from the process(col. 63, lines 63-65)

calculating statistics related to the model; (col. 63, lines 57-59) (col. 70, lines 3-10)

determining if a process event is occurring; (Col.63, lines 59-62) as a function of one or more process states being outside of normal range; (col. 21 lines 44-50) and

finding a nearest cluster of bad actors (col. 21, line 45) related to the event to identify the event. (Col.21, lines 44-49)

With regards to claim 31, Hsiung et al. (USPN 6,853,920) teaches a computer implemented method of identifying events in a process, the method comprising:

running a principal component analysis model (Col. 63, lines 53-55) on a computer on sensor data representative of multiple process parameters in the process; (col. 63, lines 63-65)

calculating statistics related to the model; (col. 63, lines 57-59) (col. 70, lines 3-10)

determining if an event is occurring in the process; (Col.63, lines 59-62) and

finding a nearest cluster of bad actors(col. 21, line 45) related to the event to

identify the event, (Col.21, lines 44-49)wherein an event consists of one or more

process parameters being out of a normal range in one or more parts of the process.

(col. 21 lines 44-50)

With regards to claims 2 and 17, Hsiung et al. (USPN 6,853,920) teaches a

nearest cluster of bad actors comprises comparing (col.1 line 23) the bad actor vectors

to known clusters in a library (col. 6, lines 8-9) of clusters for bad actors. (Col. 1, lines

21-26)

With regards to claims 3 and 18, Hsiung et al. (USPN 6,853,920) teaches

identifying a sequence of cluster matches; (col.1,lines 23-25) and

correlating the sequence of cluster matches to known events. (col.1,lines 23-25)

With regards to claim 6, Hsiung et al. (USPN 6,853,920) teaches a cluster is

limited to a predetermined number of bad actors. (tables 5 and 10)

With regards to claims 8 and 21, Hsiung et al. (USPN 6,853,920) teaches the

statistics comprise Q (residual error) (table 5) (col.73, lines5-10) and T2 (unusual

variance)(Col. 73, line 23-25)(table 5).

With regards to claim 32, Hsiung et al. (USPN 6,853,920) teaches multiple

process parameters are out of normal range. (col. 21 lines 44-50)

With regards to claim 33, Hsiung et al. (USPN 6,853,920) teaches one or more

process parameters are measured by multiple sensors.(105;figure 1A)

Allowable Subject Matter

Claims 4-5,7, 9-15, 19-20 and 22-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 4-5,7, 9-15, 19-20 and 22-28:

The primary reason for the allowance of claims 4 and 19 is the inclusion of the method steps of: determining if a cluster needs to be split when new bad actors are added; and splitting the cluster into two clusters using a goodness of fit algorithm. It is this/these features found in the claim(s), as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this/these claim(s) allowable over the prior art.

The primary reason for the allowance of claims 5 and 20 is the inclusion of the method steps of: determining if a new event category is encountered; and broadening limits for the sequence of clusters. It is this/these features found in the claim(s), as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this/these claim(s) allowable over the prior art.

The primary reason for the allowance of claim 7 is the inclusion of the method steps of: predetermined number of bad actors is ten. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claims 9 and 22 is the inclusion of the method steps of: using a feature scoring scheme to identify top contributors of bad actors. It is this/these features found in the claim(s), as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this/these claim(s) allowable over the prior art.

Claim 5 is allowed due to their dependency on claim 4.

Claims 10-15 are allowed due to their dependency on claim 9.

Claim 20 is allowed due to their dependency on claim 19.

Claims 23-28 are allowed due to their dependency on claim 22.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

The reply filed on 3/7/2007 is not fully responsive to the prior Office action because of the following omission(s) or matter(s): applicant did not respond to the claim objections set forth in the office action mailed on 12/27/2006. See 37 CFR 1.111. Since the above-mentioned reply appears to be bona fide, applicant is given a TIME PERIOD of ONE (1) MONTH or THIRTY (30) DAYS from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).

It should also be noted that examiner erroneously failed to address newly added claims 31-33 in the previous action, therefore the office action above has been corrected to properly address all of the pending claims. The one month extension is proper, since the reply was received within the last month of the reply period (SEE MPEP 710.06). Applicant's arguments will be considered when a fully responsive reply has been received.
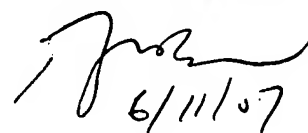
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S. Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F between 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BRYAN BUI
PRIMARY EXAMINER

Aditya Bhat
June 11, 2007